

Notice of Allowability	Application No.	Applicant(s)	
	10/708,719	BARBER ET AL.	
	Examiner	Art Unit	
	Ayal I. Sharon	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Response filed 7/23/07.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Introduction

1. Claims 1-21 of U.S. Application 10/708,719 filed on 03/19/2004 are currently pending.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with Mr. Alberto Amatong, Jr., Reg. No. 41,580 on 9/14/07.
4. Claim 19, line 1 in the application has been amended as follows:

The phrase

"The method of claim 16, wherein the comparing comprises"

has been changed to

---- The system of claim 16, wherein the comparing step comprises ----

5. Claim 20, line 1 in the application has been amended as follows:

The phrase

"The method of claim 19,"

has been changed to

---- The system of claim 19, ----

6. Claim 21, line 1 in the application has been amended as follows:

The phrase

"The method of claim 16, wherein the program further comprises"

has been changed to

---- The system of claim 16, wherein the system further comprises ----

Examiner's Statement of Reasons for Allowance

7. Claims 1-21 are allowed. The following is an examiner's statement of reasons for allowance for claims 1-21.
8. The closest relevant art referred to in this Reasons for Allowance is as follows:
- a. U.S. Patent 7,076,370 to Freedman et al. ("**Freedman**").
 - b. U.S. Patent 7,091,722 to Homan et al. ("**Homan**").
9. Claim 1 recites the following limitations:

1. A method for modeling borehole effects of an induction tool having a plurality of arrays that include at least one transverse array, the method comprising:

selecting a formation-borehole model having a set of parameters, wherein the set of parameters comprises a direction of tool eccentricity;

determining initial values for the set of parameters;

computing expected responses for a selected set of arrays from the plurality of arrays of the induction tool, wherein the computing is based on the formation-borehole model;

comparing the expected responses with actual responses for the selected set of arrays;

adjusting values of the set of parameters, if a difference between the expected responses and the actual responses is not less than a predetermined criterion;

repeating the computing, the comparing, and the adjusting, until the difference between the expected responses and the actual responses is less than the predetermined criterion;

determining the borehole effects from final values of the set of parameters.

10. Freedman teaches the limitations of claim 1. See especially Freedman at: col.2, lines 32-42; col.2, line 50 to col.3, line 4; col.3 lines 19-41; and col.3, line 44 to col.5, line 6. Freedman, however, was filed on Dec. 16, 2004, and therefore does not qualify as prior art.

11. Homan also teaches the limitations of claim 1. See especially Homan at: col.4, lines 44-52; Fig.3 and col.5, lines 45-55; col.8, lines 56-67; and col.10, lines 25-26. Homan, however, was filed on Sept. 29, 2004, and therefore does not qualify as prior art.

12. Dependent claims 2-15 are allowable because they depend from allowable independent claim 1.

13. Claims 16-21 are allowed based on the same reasoning as given for claims 1-3 and 7-9. Claims 16-21 are system claims that recite limitations equivalent to those recited in method claims 1-3 and 7-9.

14. The examiner has accorded patentable weight to the structural limitations recited in the preamble of claim 16.

Art Unit: 2123

15. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a biweek, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753.

Any response to this office action should be faxed to (571) 273-8300, or mailed to:

USPTO
P.O. Box 1450
Alexandria, VA 22313-1450

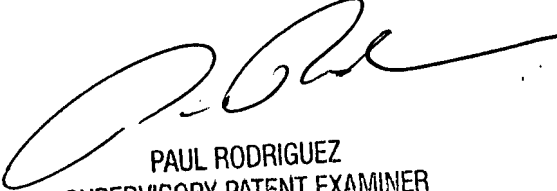
or hand carried to:

USPTO
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Art Unit: 2123

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2100 Receptionist, whose telephone number is (571) 272-2100.

Ayal I. Sharon
Art Unit 2123
September 14, 2007



PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100